

REMARKS

Rejection of claims 1-10, 12-27 and 29-43 under 35 U.S.C. §103(a)

Applicant traverses the Examiner's finding of obviousness for these claims. The cited art, singularly or in combination, does not teach or suggest the invention in the claims as previously amended. The Probert reference is concerned with a software layer that provides conversion of information formats for data files accessed by application programs. The Khoyi reference is concerned with an object based data processing system with a set of object types and corresponding object managers. These prior art patents are not concerned with databases. Further, these patents do not teach or suggest the claimed embodiments herein as further discussed below.

Claim 1

In rejecting claim 1, the Examiner cites Probert for the bulk of the claim limitations. For the limitation of "database optimizer" the Examiner cites Probert Fig. 5 which shows a monitor of access requests. This is quite a stretch of what is considered a database optimizer as it is known in the art and described in the application. A database optimizer receives database queries and formulates access plans to a database. There is no teaching or suggestion in Probert that the monitor of access requests performs the function of a database optimizer. Further, Probert does not teach or suggest that the monitor of access requests changes a data base schema.

Again in rejecting claim 1, the Examiner cites Probert for the limitation of "database schema" referring to Fig. 4 which shows the generation of docfile allocation structures. A docfile allocation structure is not part of a database and is not a database schema. The Examiner has not shown why and how one of ordinary skill in the art would associate the docfile allocation structure in Probert with a database schema in claim 1.

The Examiner's argument does not give a theory for this association to make a prima facie case of obviousness. To read the claim language on Probert as suggested by the Examiner requires a significantly broader interpretation beyond the plain and ordinary meaning of the claim language.

The Examiner cites Khoyi for the "location of the data." The location of data in claim 1 is included in the statistics used by the database optimizer. Even if Khoyi teaches a location of data, Khoyi in combination with Probert does not teach or suggest a database optimizer that uses statistics regarding 1) the type of applications accessing data in a database; 2) the frequency with which the applications access the data; and 3) the location of the data being accessed by the application. Furthermore, such statistics are not used to optimize the performance of accessing data in the database in Probert nor Khoyi. To establish a prima facie case of obviousness for claim 1, the examiner would have to assert that it would be obvious to one of ordinary skill in the art at the time the invention was made to modify Probert according to the location of data taught in Khoyi so that Probert would collect statistics regarding the location of data being accessed by the applications, and would use that information to make at least one change to database schema to optimize the performance of accessing data in the database. Because the examiner has not provided the proper rationale for combining Probert and Khoyi, the examiner has failed to establish a prima facie case of obviousness under 35 U.S.C. §103(a) for claim 1. Neither Probert, Khoyi, nor their combination teach or suggest a database optimizer that uses statistics regarding the location of the data being accessed by the application to make at least one change to the database schema to optimize the performance of accessing data in the database, as recited in claim 1. For these reasons, claim 1 is allowable over the combination of Probert and Khoyi. Applicants respectfully request reconsideration of the Examiner's rejection of claim 1 under 35 U.S.C. §103(a).

Claims 2-9

Each of claims 2-9 depend on claim 1, which is allowable for the reasons given above. As a result, claims 2-9 are allowable as depending on an allowable independent claim. Applicant respectfully requests reconsideration of the Examiner's rejection of claims 37-40 under 35 U.S.C. §103(a).

Further, with respect to claim 4, for the limitation of "adding a new column of a second data type to the database that contains the same data in an existing column of a first data type in the database," the Examiner cites Probert, Figure 4. While Figure 4 in Probert does suggest storing a file in a first format in a new file format, it does not teach or suggest anything about storing the same data in a database or in a database column. Storing a file in another format does not teach or suggest storing a piece of data of a first format in a second column in another data type. There are huge differences that the Examiner has simply leaped over without any explanation or reasoning why it would be obvious to do so.

Claims 10, 12, 20, 24, 29 and 40

Each of independent claims 10, 12, 20, 24, 29 and 40 include limitations as described above and those arguments are included here by reference. Therefore these claims are also allowable over the combination of Probert and Khoyi. Applicants respectfully request reconsideration of the Examiner's rejection of claims 10, 12, 20, 24, 29 and 40 under 35 U.S.C. §103(a).

Claims 14-19, 21-23, 25-27, 30-39, and 41-42

Each of claims 14-19, 21-23, 25-27, 30-39, and 41-42 depend on the independent claims discussed above. These claims are therefore allowable over the combination of Probert and Khoyi as depending on an allowable independent claim. In addition, some of these claims have limitations that correspond to the limitations in claims 2-9, which are allowable for the reasons given above. Applicants respectfully request reconsideration of the Examiner's rejection of claims 14-19, 21-23, 25-27, 30-39, and 41-42 under 35 U.S.C. §103(a).


Allowance of claims 11 and 43-45

The Examiner allowed claims 11 and 43-45. Applicants thank the Examiner for the allowance of these claims. However, Applicants believe the claims that the Examiner previously indicated were allowable are also allowable as described above.

Conclusion

In summary, none of the cited prior art, either alone or in combination, teach, support, or suggest the unique combination of features in applicants' claims presently on file. Therefore, applicants respectfully assert that all of applicants' claims are allowable. Such allowance at an early date is respectfully requested. The Examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

Respectfully submitted,

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